THE AEROSPACE CORPORATION



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Dr. William E. Mott Acting Director Environmental & Safety Engineering Division U. S. Department of Energy Germantown, Maryland 20767

Dear Dr. Mott: -

UNIVERSITY OF CHICAGO BUILDINGS USED BY THE MANHATTAN ENGINEER DISTRICT

During a recent investigation of the official Manhattan Engineer District history, I came across some additional information that may be a reason to expand the survey work at the University of Chicago. It appears that several buildings were in use for research in physics (pile project), chemistry (separation and purification of U-235 and Pu-239) and health effects (metal toxicology and radiation effects).

Aerospace will continue the search for more specific information on these buildings. At present, it is recommended that screening surveys be performed at those buildings (not yet surveyed) for which the attached information shows the potential for the past presence of radioactive material.

Please contact me if you have any questions or comments on the attached information.

> Sincerely, Edmand J. Vingle

Edmund A. Vierzba Environmental Controls & Analysis

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GENERAL OFFICES LOCATED AT: 2350 EAST EL SEGUNDO SOULEVARD, EL SEGUNDO, CALIFORNIA

UNIVERSITY OF CHICAGO: THE METALLURGICAL LABORATORY BUILDING USAGE FOR MANHATTAN ENGINEER DISTRICT CONTRACT WORK

1. INTRODUCTION

Recent historical research of the "Manhattan Project Official History and Documents" (Book IV, volume 2, Part I, page 2.4ff) revealed the usage of additional buildings at the University of Chicago by the Metallurgical Laboratory. The documents were not specific as to the nature of the work conducted in each building, but in general it can be said that the Physics Group was conducting pile research and experiments with the cyclotron, the Chemistry Group experimented with the separation and purification of U-235 and Pu-239 and the Health Group researched the effects of radiation on animals. In addition, some office space was used for the administration of the Metallurgical Laboratory and Chicago Area Office. A summary of the history follows and a table at the end evaluates the potential for use of radioactive material in or around the building.

2. PHYSICS GROUP

The Physics Group was assigned space in the West and North Stands of Stagg Field and in the Service Building where the cyclotron was located.

3. CHEMISTRY GROUP

The Chemistry Group used laboratories in Jones and Kent Laboratories. Kent Laboratory was vacated when the New Chemistry Building was made available to the Chemistry Group in 1942. The New Chemistry Annex was completed in November 1945.

4. HEALTH GROUP

The Health Group was assigned space in the Anatomy Building, Billings Hospital, Drexel House and Ellis Laboratory.

5. ADMINISTRATION

Administrative offices were originally located in a part of Eckhart Hall. As the Metallurgical Laboratory expanded, they took over all of Eckhart Hall and adjoining Ryerson Hall, but it is unknown as to whether laboratories occupied a part of these buildings.

6. DISPLACED UNIVERSITY FUNCTIONS

The University functions, displaced by the Metallurgical Laboratory, moved to the Reynolds Student Clubhouse, Barnes Laboratory, the Botany Building, the Alpha Delta Phi Fraternity House and the Museum of Scinece and Industry.

7. SITE B (6111 UNIVERSITY AVENUE)

Formerly an ice house and stables, this area was remodeled by June 1943 for laboratory, shop and service facilities for the Chemistry and Health groups. The site was doubled in fall of 1943 to provide a total of 62,670 square feet of facilities.

8. ARMORY (52nd STREET AND COTTAGE GROVE AVENUE)

This building was remodeled in 1944 to provide laboratories, shops, stock-rooms and offices for administrative personnel of the Metallurgical Laboratory and the Chicago Area Office. The second, third and fourth floors at the south end and the shed in the southwest corner of the yard were used for laboratory investigation. The first floor at the south end, the north part of the arena, the east side battery section and yard area were used as stock, storage, receiving and shipping rooms, special material and carpenter shops. The south end of the arena and cubicles facing the arena were used by the Area Engineer as material and car storage areas. Offices were located on the first, second and third floors (north end) and also in the west side battery section.

9. MICHAEL REESE HOSPITAL

The Manhattan Engineer District History shows that alterations were made to a building identified as Michael Reese Hospital but no mention is made of its location. It had a subcontract to conduct metal toxological experiments.

SUMMARY OF POSSIBLE FINDINGS OF RESIDUAL RADIOACTIVE MATERIAL AT UNIVERSITY OF CHICAGO BUILDINGS (OR THOSE OCCUPIED BY METALLURGICAL LABORATORY PERSONNEL)

BUILDING NAME	USED BY	POTENTIAL FOR PAST PRESENCE OF RADIOACTIVE MATERIAL
Stagg Field, West Stands	Physics Group	High (location of CP-1)
Stagg Field, North Stands	Physics Group	Medium (type of work unknown)
Service Building	Physics Group	High (Cyclotron)
Jones Laboratory	Chemistry Group	High (Pu-239 and U-235)
Kent Laboratory	Chemistry Group	Medium (vacated in 1942)
New Chemistry Building	Chemistry Group	High (Pu-239 and U-235)
New Chemistry Annex	Chemistry Group	High (Pu-239 and U-235)
Anatomy Building	Health Group	High (Effects of Radiation)
Billings Hospital	Health Group	High (Effects of Radiation)
Drexel House	Health Group	High (Effects of Radiation)
Ellis Laboratory	Health Group	High (Effects of Radiation)
Eckhart Hall	Administration	Medium (Possible Laboratory Use)
Ryerson Hall	Administration	Medium (Possible Laboratory Use)
Reynolds Student Clubhouse	University	Low (Relocation of University Function)
Barnes Laboratory	University	Low (Relocation of University Function)
Botany Building	University	Low (Relocation of University Function)
Alpha Delta Phi Fraternity	University	Low (Relocation of University Function)
Museum of Science & Industry	University	Low (Relocation of University Function)
Site B	Chemistry & Health Groups	High (Chemistry and Health Labs)
Armory	Administration & Labs	Medium (Unknown Laboratory work)
Michael Reese Hospital	Health Group	High (Metal Toxicology)
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